

0702

#10



ENTERED

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/024,818

DATE: 07/05/2002 P6

TIME: 14:41:20

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

3 <110> APPLICANT: Froehler, Brian
 4 Wagner, Rick
 5 Mateucci, Mark
 6 Jones, Robert J.
 7 Gutierrez, Arnold J.
 8 Pudlo, Jeff

10 <120> TITLE OF INVENTION: Enhanced Triple-Helix And Double-Helix Formation With
 Oligomers

11 Containing Modified Pyrimidines
 13 <130> FILE REFERENCE: GLIS0143
 15 <140> CURRENT APPLICATION NUMBER: 10/024,818
 16 <141> CURRENT FILING DATE: 2001-12-18
 18 <150> PRIOR APPLICATION NUMBER: 08/599,738
 19 <151> PRIOR FILING DATE: 1996-02-12
 21 <160> NUMBER OF SEQ ID NOS: 54
 23 <170> SOFTWARE: PatentIn version 3.1
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 15
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Artificial Sequence
 30 <220> FEATURE:
 31 <223> OTHER INFORMATION: Synthetic construct
 33 <220> FEATURE:
 34 <221> NAME/KEY: misc_feature
 35 <222> LOCATION: (2)..(2)
 36 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 39 <220> FEATURE:
 40 <221> NAME/KEY: misc_feature
 41 <222> LOCATION: (4)..(4)
 42 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 45 <220> FEATURE:
 46 <221> NAME/KEY: misc_feature
 47 <222> LOCATION: (6)..(6)
 48 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 51 <220> FEATURE:
 52 <221> NAME/KEY: misc_feature
 53 <222> LOCATION: (8)..(8)
 54 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 57 <220> FEATURE:
 58 <221> NAME/KEY: misc_feature
 59 <222> LOCATION: (10)..(10)
 60 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
 63 <400> SEQUENCE: 1
 W--> 64 tntntntntn ttttt

15

RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/10/024,818

TIME: 14:41:20

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

```

67 <210> SEQ ID NO: 2
68 <211> LENGTH: 15
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: Synthetic construct
75 <220> FEATURE:
76 <221> NAME/KEY: misc_feature
77 <222> LOCATION: (2)..(2)
78 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
81 <220> FEATURE:
82 <221> NAME/KEY: misc_feature
83 <222> LOCATION: (4)..(4)
84 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
87 <220> FEATURE:
88 <221> NAME/KEY: misc_feature
89 <222> LOCATION: (6)..(6)
90 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
93 <220> FEATURE:
94 <221> NAME/KEY: misc_feature
95 <222> LOCATION: (8)..(8)
96 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
99 <220> FEATURE:
100 <221> NAME/KEY: misc_feature
101 <222> LOCATION: (10)..(10)
102 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
105 <220> FEATURE:
106 <221> NAME/KEY: misc_feature
107 <222> LOCATION: (11)..(15)
108 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
111 <400> SEQUENCE: 2
W--> 112 tntntntntn nnnnnn 15
115 <210> SEQ ID NO: 3
116 <211> LENGTH: 15
117 <212> TYPE: DNA
118 <213> ORGANISM: Artificial Sequence
120 <220> FEATURE:
121 <223> OTHER INFORMATION: Synthetic construct
123 <220> FEATURE:
124 <221> NAME/KEY: misc_feature
125 <222> LOCATION: (2)..(2)
126 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (4)..(4)
132 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
135 <220> FEATURE:
136 <221> NAME/KEY: misc_feature
137 <222> LOCATION: (6)..(6)

```

RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/10/024,818

TIME: 14:41:20

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

```

138 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (7)..(7)
144 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
147 <220> FEATURE:
148 <221> NAME/KEY: misc_feature
149 <222> LOCATION: (8)..(8)
150 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (9)..(9)
156 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
159 <220> FEATURE:
160 <221> NAME/KEY: misc_feature
161 <222> LOCATION: (10)..(10)
162 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (11)..(11)
168 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
171 <220> FEATURE:
172 <221> NAME/KEY: misc_feature
173 <222> LOCATION: (13)..(13)
174 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
177 <220> FEATURE:
178 <221> NAME/KEY: misc_feature
179 <222> LOCATION: (15)..(15)
180 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
183 <400> SEQUENCE: 3
W--> 184 tntntnnnnnn ntntn 15
187 <210> SEQ ID NO: 4
188 <211> LENGTH: 15
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Synthetic construct
195 <400> SEQUENCE: 4
196 agagagagag aaaaaa 15
199 <210> SEQ ID NO: 5
200 <211> LENGTH: 15
201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
204 <220> FEATURE:
205 <223> OTHER INFORMATION: Synthetic construct
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (2)..(2)
210 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine

```

RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/10/024,818

TIME: 14:41:20

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

```

213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (4)..(4)
216 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
219 <220> FEATURE:
220 <221> NAME/KEY: misc_feature
221 <222> LOCATION: (6)..(6)
222 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
227 <222> LOCATION: (8)..(8)
228 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
231 <220> FEATURE:
232 <221> NAME/KEY: misc_feature
233 <222> LOCATION: (10)..(10)
234 <223> OTHER INFORMATION: This position is C*= 5-(1-propynyl)-2'-deoxycytidine
237 <400> SEQUENCE: 5
W--> 238 tntntntntn ttttt                                     15
241 <210> SEQ ID NO: 6
242 <211> LENGTH: 15
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial Sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Synthetic construct
249 <400> SEQUENCE: 6
250 aaaaagagag agaga                                         15
253 <210> SEQ ID NO: 7
254 <211> LENGTH: 15
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Synthetic construct
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: (1)..(1)
264 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (2)..(2)
270 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (3)..(3)
276 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
279 <220> FEATURE:
280 <221> NAME/KEY: misc_feature
281 <222> LOCATION: (4)..(4)
282 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
285 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 07/05/2002

PATENT APPLICATION: US/10/024,818

TIME: 14:41:20

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

```

286 <221> NAME/KEY: misc_feature
287 <222> LOCATION: (5)..(5)
288 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
291 <220> FEATURE:
292 <221> NAME/KEY: misc_feature
293 <222> LOCATION: (6)..(6)
294 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (7)..(7)
300 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
303 <220> FEATURE:
304 <221> NAME/KEY: misc_feature
305 <222> LOCATION: (8)..(8)
306 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
309 <220> FEATURE:
310 <221> NAME/KEY: misc_feature
311 <222> LOCATION: (9)..(9)
312 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
315 <220> FEATURE:
316 <221> NAME/KEY: misc_feature
317 <222> LOCATION: (10)..(10)
318 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
321 <220> FEATURE:
322 <221> NAME/KEY: misc_feature
323 <222> LOCATION: (11)..(15)
324 <223> OTHER INFORMATION: This position is U*= 5-(1-propynyl)-2'-deoxyuridine
327 <400> SEQUENCE: 7
W--> 328 nnnnnnnnnnn nnnnn 15
331 <210> SEQ ID NO: 8
332 <211> LENGTH: 15
333 <212> TYPE: DNA
334 <213> ORGANISM: Artificial Sequence
336 <220> FEATURE:
337 <223> OTHER INFORMATION: Synthetic construct
339 <220> FEATURE:
340 <221> NAME/KEY: misc_feature
341 <222> LOCATION: (2)..(2)
342 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
345 <220> FEATURE:
346 <221> NAME/KEY: misc_feature
347 <222> LOCATION: (4)..(4)
348 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
351 <220> FEATURE:
352 <221> NAME/KEY: misc_feature
353 <222> LOCATION: (6)..(6)
354 <223> OTHER INFORMATION: This position is C'= 5-methyl-2'-deoxycytidine
357 <220> FEATURE:
358 <221> NAME/KEY: misc_feature

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/024,818

DATE: 07/05/2002
TIME: 14:41:21

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 2,4,6,8,10
Seq#:2; N Pos. 2,4,6,8,10,11,12,13,14,15
Seq#:3; N Pos. 2,4,6,7,8,9,10,11,13,15
Seq#:5; N Pos. 2,4,6,8,10
Seq#:7; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
Seq#:8; N Pos. 2,4,6,7,8,9,11,13,15
Seq#:9; N Pos. 2,4,6,8,10,11,12,13,14,15
Seq#:13; N Pos. 1,3,5,7,9,10,11,12,13,14,15
Seq#:14; N Pos. 6,9,17,20
Seq#:15; N Pos. 2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:16; N Pos. 2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:17; N Pos. 2,3,4,5,6,7,8,9,11,12,13,14,15,16,17,18,19,20
Seq#:18; N Pos. 1,2,3,4,6,7,8,9,10,11,12,13,14,15
Seq#:19; N Pos. 1,2,3,4,6,7,8,9,10,11,12,13
Seq#:20; N Pos. 1,2,3,4,6,7,8,9,10,11
Seq#:21; N Pos. 1,2,3,4,6,7,9,10,11,12,13,14,15
Seq#:22; N Pos. 1,2,3,4,5,6,7,8,9,10,12,13,14,15
Seq#:23; N Pos. 1,2,4,5,7,8,9,10,11,13,14,16,18,19,20,23
Seq#:24; N Pos. 1,2,3,4,6,7,8,9
Seq#:25; N Pos. 1,2,4,5,7,8,9,10,11,12,13,14,15,16,17,18,19,20
Seq#:28; N Pos. 2,4,6,8,10,11,12,13,14
Seq#:29; N Pos. 2,4,6,8,10
Seq#:30; N Pos. 2,4,6,8,10,11,12,13,14
Seq#:31; N Pos. 2,4,6,8,10,11,12,13,14
Seq#:32; N Pos. 2,4,6,8,10,11,12,13,14,15
Seq#:33; N Pos. 2,4,6,7,8,9,10,11,13,15
Seq#:34; N Pos. 2,4,6,8,10
Seq#:35; N Pos. 2,4,6,8,10,11,12,13,14,15
Seq#:36; N Pos. 2,4,6,7,8,9,10,11,13,15
Seq#:37; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
Seq#:38; N Pos. 4,8,9,11,12
Seq#:39; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17
Seq#:43; N Pos. 2,4,6,8,10
Seq#:44; N Pos. 2,4,6,8,10
Seq#:45; N Pos. 2,4,6,8,10
Seq#:46; N Pos. 2,4,6,8,10
Seq#:47; N Pos. 2,4,6,8,10
Seq#:48; N Pos. 2,4,6,8,10
Seq#:50; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:50; N Pos. 24,25,26,27,28
Seq#:51; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23
Seq#:54; N Pos. 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15

VERIFICATION SUMMARY

DATE: 07/05/2002

PATENT APPLICATION: US/10/024,818

TIME: 14:41:21

Input Set : A:\EP.txt

Output Set: N:\CRF3\07052002\J024818.raw

L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:376 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:640 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:898 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:952 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:1018 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:1120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:1437 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:1486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:1564 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:1583 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:1632 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:1709 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:1787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:1817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:1874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:1976 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:2024 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:2072 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:2114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:2156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:2203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:2311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:2419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:2521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0